DOCUMENT RESUME

ED 367 020 CS 508 477

AUTHOR Frymier, Ann Bainbridge
TITLE The Impact of Teacher Immediacy on Students' Motivation over the Course of a Semester.
PUB DATE Nov 93
NOTE 29p.; Paper presented at the Annual Meeting of the Speech Communication Association (79th, Miami Beach, FL, November 18-21, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Communication Research; Higher Education; *Student Motivation; *Teacher Behavior; *Teacher Student Relationship; Undergraduate Students
IDENTIFIERS Communication Behavior; *Teacher Immediacy

ABSTRACT

A study investigated the impact of teachers' use of immediacy behaviors on students' reported motivation to study over the course of a semester. The state and trait motivation of 178 undergraduate students (enrolled in communication courses at a mid-sized eastern university) to study for a class was measured at three points during the semester. Reports of teachers' use of verbal and nonverbal immediacy were collected at two points in a semester. Support was found for the hypothesis that not all students would respond similarly to a teacher low in immediacy. Students beginning the semester with either low or moderate state motivation to study were found to have increased levels of motivation later in the semester when exposed to a highly immediate teacher. Students beginning the semester with high motivation maintained high motivation regardless of the level of immediacy they reported their teacher's having. (Nine tables of data are included. Contains 22 references.) (Author/RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 367 020

The Impact of Teacher Immediacy on Students' Motivation Over the Course of a Semester

Ann Bainbridge Frymier

Ann Bainbridge Frymier (Ed.D., West Virginia University, 1992) is an Assistant Professor at Miami University, Oxford, Ohio.

Correspondence can be addressed to Ann Bainbridge Frymier, 160 Bachelor Hall, Speech Communication, Miami University, Oxford, OH 45056, or telephoned at (513) 529-7171.

Paper presented at the 1993 Instructional Development Division of the Speech Communicatin Association, Miami, FL.

Running head: IMMEDIACY AND MOTIVATION

CS508477

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

A. Frymier

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

This study investigated the impact of teachers' use of immediacy behaviors on students' reported motivation to study over the course of a semester. Students' state and trait motivation to study for a class was measured at three points during a semester. Reports of teachers' use of verbal and nonverbal immediacy were collected at two points in a semester. It was hypothesized that not all students would respond similarly to a teacher low in immediacy. Support was found for this hypothesis. Students beginning the semester with either low or moderate state motivation to study were found to have increased levels of motivation later in the semester when exposed to a highly immediate teacher. Students beginning the semester with high motivation maintained high motivation regardless of the level of immediacy they reported their teacher of having.

Teacher immediacy has been a heavily researched construct in recent years, with results indicating that communication of immediacy has a positive influence on students. Verbal and nonverbal immediacy have been associated with increased affective learning (Andersen, 1979), perceived cognitive learning (Gorham, 1988; Richmond, Gorham, & McCroskey, 1987), and motivation (Christophel, 1990; Richmond, 1990). An implicit assumption of this previous research has been that all students equally benefit from immediacy. Frymier (1993) found that students appeared to respond to an immediate teacher differently depending on their level of communication apprehension. Students with moderate and high levels of communication apprehension appeared to benefit more from having a highly immediate teacher, where low apprehensives had high motivation regardless of the level of immediacy they reported their teacher as having. Some students may benefit more from an immediate teacher than other students. An objective of the present research was to investigate the differential impact of teacher immediacy on students' motivation to study over the course of a semester.

Immediacy

Immediacy was conceptualized by Mehrabian (1971) as communication behaviors that enhance physical and psychological closeness with another. Nonverbal immediacy has been operationalized as behaviors such as eye contact, smiling, positive use of gestures, vocal variety, forward body leans, and a relaxed

body position. Verbal immediacy has been operationalized as verbal behaviors such as use of personal examples, using "we" and "our," using students first names, and using humor in class. Gorham (1988) determined that both verbal and nonverbal immediacy contributed to students' perceptions of teacher immediacy, and was associated with students' affective and cognitive learning. Andersen (1979) first investigated teacher nonverbal immediacy in the classroom and found that teacher immediacy was positively related to students' affective learning, but teacher immediacy was not associated with cognitive learning as measured by performance on a multiple choice test. Andersen also demonstrated that students were as accurate in assessing teachers' immediacy behaviors as were trained observers. Although Andersen did not find a relationship between teacher immediacy and cognitive learning, Kelley and Gorham (1988) demonstrated such a relationship in a controlled setting where affect for the instructor was minimized. Additional support for the immediacy-cognitive learning relationship was provided by Richmond et al. (1987) who were able to discriminate high learners from low learners using student reports of teacher immediacy.

Student motivation to study was introduced simultaneously by Christophel (1990) and Richmond (1990) as a possible mediating variable between teacher immediacy and student learning. Richmond (1990) found immediacy to be positively associated with motivation and motivation to be positively associated with

affective and cognitive learning. Christophel (1990) concluded that immediacy had to first modify state motivation to study in order to impact learning. In addition to investigating the impact of teacher immediacy on students' motivation to study, Christophel also utilized a split-class methodology to eliminate the possible contamination of the affective learning scores by concurrent completion of the immediacy scale. The split-class methodology required half of a class to complete the learning measures and the other half of the class to complete the teacher immediacy scale. Using this methodology, Christophel was able to replicate previous research findings of a positive association between teacher immediacy and student learning, "indicating most earlier discoveries were not simply an artifact of measurement" (p. 339).

Motivation

Motivation has been defined in various ways, but the concept of motivation always in some way refers to what students do. Stimulating and maintaining student interest is at the basis of much of the motivation literature. Wlodkowski (1978) discusses a common myth concerning student interest, "When students will not involve themselves in activities or do assigned tasks, they are unmotivated" (Wlodkowski, 1978, p. 13). Students are almost always motivated and interested in something, though that something may not be the behavior desired by the teacher.

Motivation is typically defined as existing as being both a state and a trait (Brophy, 1986; 1987; Keller, 1983). Trait

motivation is fairly stable and resistant to situational influences. State motivation, on the other hand, is determined by situational influences and is not stable. One of those situational influences is the teacher. Teachers can have an impact on the level of state motivation exhibited by students in their classroom. The question is, how can teachers impact state motivation?

A variety of teaching strategies have been offered in the literature to facilitate student motivation. Some of these strategies address the teacher's communication behavior -- what the teacher says and how he/she says it (Brophy, 1986; Wlodkowski, 1978). Other strategies focus more on instructional design and on how information and learning materials are organized and presented to students (Keller, 1987b). The motivational strategies that involve teachers' communication behaviors are particularly relevant for the present study which is concerned with communication behaviors that impact student motivation.

Getting students' attention is often considered to be a first step in motivating students to do a particular task (Brophy, 1986, 1987; Corno & Mandinach, 1983; Keller, 1983; Wlodkowski, 1978). To stimulate students' interest, Wlodkowski (1978) recommends strategies that include using "movement, voice, body language, pauses, and props to vitalize and accentuate classroom presentations" (p. 27). Other strategies recommended by Wlodkowski are using humor, relating learning to student interests,

using stories, questions and analogies to involve students in the content, and involving students in learning through role plays, simulations, and problem solving games. These strategies are similar in nature to verbal and nonverbal communication behaviors that increase perceptions of immediacy.

Another major theme in the motivation literature is teacher enthusiasm. The importance of teacher enthusiasm is based in Social Learning Theory and Modeling (Bandura, 1977), which asserts that one of the ways people learn is through observation. Brophy (1986, 1987), Keller (1983) and Wlodkowski (1978) all assert that if a teacher lacks enthusiasm for the content being taught, or worse, acts as if he/she finds it boring and tedious, students will learn that the content is boring and tedious. If teachers present material in an enthusiastic manner that communicates liking and appreciation for the content, students will learn that the content is worthwhile and something to be appreciated. Students' state motivation in the classroom is influenced by a variety of environmental variables, one of these variables is the teacher. How the teacher behaves and communicates with students is thought to impact students' motivation in the classroom. Specifically, teacher immediacy is a variable that is expected to influence students' state motivation to study.

The extant immediacy research indicates a positive association between teachers' use of immediacy and students'

reported motivation to study for the class. Although previous research has not established a causal relationship, immediacy is presumed to influence motivation. Based on this line of reasoning, the following hypothesis is proposed.

> H1: Students' with a highly immediate teacher will have increased levels of state motivation at mid-semester and at the end of the semester.

As mentioned above, Frymier (1993) found that teacher immediacy appeared to impact students differentially depending on their level of communication apprehension. It is quite reasonable to assume that not all students will respond to a particular teacher behavior or technique in the same way. Whether it is immediacy behaviors, lecture, discussion, humor, ambiguity, or anything else a teacher may do in the classroom, students are likely to respond differently depending on individual characteristics. One such student characteristic is the level of motivation in which they enter a class with. Some students begin a class highly motivated, optimistic that this class will be wonderful. Other students begin a class with dread, with little motivation, except for possibly dropping the class. Therefore, teacher immediacy was expected to impact students' mid-semester and end-of-the-semester motivation differently depending on their beginning motivation.

H2: Students' with low or moderate beginning motivation will benefit more from a highly immediate teacher than will students with high beginning motivation.

METHOD

Research Design

The primary objective of this research was to investigate the impact of teacher immediacy on students motivation over the course of a semester. In order to do this, a research design was used that obtained a measure of students' motivation prior to exposure to the teacher, which could then be compared to measures of motivation later in the semester.

As is described in detail in the Procedures section of this paper, a measure of students' trait and state motivation was obtained on the first day of the semester prior to any exposure to the instructor of the class on which students were reporting. This measure of beginning motivation reflected what students brought to the classroom situation with them. Thus, any changes in students' motivation to study for a class during the semester could be attributed to the class itself, and more specifically to the teacher of that class. It could be argued that course design and content may be the source of causation as opposed to the teacher, but previous research on students' attitudes toward the content and toward the teacher have found that students do not differentiate greatly between the teacher and the content (Christophel, 1990; Frymier & Thompson, 1991; Richmond, 1990). In other words, if a student likes

the teacher, he/she is also likely to like the content. Also, most college teachers use lecture and discussion methods with few college teachers using dramatically different teaching methods. Course design, therefore, should not have any meaningful effect on students' motivation throughout the semester in this study.

Participants

Participants consisted of 178 undergraduate students enrolled in communication courses at a mid-sized eastern university. Utilizing the methodology developed by Plax, Kearney, McCroskey, and Richmond (1986), participants were asked to evaluate the instructor of their class meeting immediately following the course in which they were completing the survey instruments. This methodology maximized the number of instructors evaluated, the range of disciplines represented, and included instructors who otherwise may not have agreed to participate in such a study.

Of the 178 participants, 87 were females, 87 were males, and 4 did not indicate their sex. Participants reported on 67 female instructors, 105 male instructors, and 6 did not indicate instructor sex. Participants consisted of 40 freshmen, 50 sophomores, 50 juniors, and 35 seniors (3 unidentified), were from a broad range of majors, and reported on classes from 45 departments in the university.

Procedures

Data were collected at three points in the semester. On the first day of the semester (T_1), participants were asked to think of the class immediately following the one in which they were completing the research instruments and write the name of that instructor/course number on the inside of their course workbook. Students were also asked to record the code number on the survey in their workbook, and to use that code number for future surveys. Participants were then asked to complete the trait and state motivation scales and to provide demographic information. Data were collected on the first day of the semester with students referencing a teacher in a class they had not yet attended in order to acquire a measure of students' beginning state and trait motivation free of instructor influence. At seven to eight weeks into the semester (T_2), participants were asked to recall the course on which they had completed the motivation measures at T_1, and again complete the trait and state motivation scales and the immediacy scale.[1] During the week before final exams (T_3), participants were asked to complete the same scales as completed at T_2 on the same instructor. Surveys were matched by code number and course reported for each participant. At T_1, 523 surveys were collected; at T_2, 317 surveys were collected (39% attrition); and at T_3, 307 surveys were collected (3% attrition).[2] One hundred seventy-eight participants completed usable surveys for T_1, T_2, and

T_3, and an additional 73 usable surveys were completed for T_1 and T_2, but not T_3.

Measurement

Immediacy. Immediacy was measured with the Verbal Immediacy Scale (Gorham, 1988) and the Nonverbal Immediacy Scale (Richmond, et al. 1987). Participants were asked to indicate the frequency with which their teachers performed each immediacy behavior (on both verbal and nonverbal scales) using a Likert-type scale from zero (Never) to four (Very Often). Reliability estimates for previous use of these scales have ranged from .80 to .89 (Christophel, 1990). (See Table 1 for reliabilities.)

Insert Table 1 about here

Motivation. Trait and state motivation were operationalized with Richmond's (1990) motivation scale. The motivation scale consists of five, seven-step bipolar adjectives, which is an expansion of Beatty, Forst, and Stewart's (1986) three-item scale. The same adjectives were used for both the state and trait measures of motivation, but, the directions for each scale differed. The state motivation scale asked students how they felt about studying for the class they were taking immediately after the class in which they were completing the scales. The trait motivation scale asked students how they felt in general about studying for classes. Richmond (1990) and Frymier and Thompson (1992) utilized the

state motivation scale and both reported an alpha reliability of .94 (See Table 1 for reliabilities).

RESULTS

To determine if differences in state motivation over the course of the semester existed due to verbal and nonverbal immediacy, a MANOVA with repeated measures was performed with state motivation at T_2 and T_3 as dependent variables and state motivation at T_1 (high, moderate, and low) and immediacy (verbal and nonverbal in separate analyses) T_2 as independent variables. There were significant main effects for nonverbal immediacy [$F(1/171) = 14.24$, $p < .05$], for verbal immediacy [$F(1/171) = 5.99$, $p < .05$], and for state motivation at T_1 [$F(2/171) = 12.96$, $p < .05$]. No interactions were significant.

Analysis of variance was used in order to examine any differences in motivation at T_2 and T_3. Four, 2 (high and low immediacy) x 3 (high, moderate, and low motivation at T_1) factorial analysis of variance were used. Levels of immediacy were created using a theoretical median-split (verbal median=40.00; nonverbal median=28.00). Levels of state motivation at T_1 were created using a theoretical median of 20 plus or minus 5 points ($\leq$15 = low; 16-25 = moderate; $\geq$26 =high).

Analyses with nonverbal immediacy will be reported first. The first ANOVA used state motivation at T_2 as the dependent variable, with nonverbal immediacy at T_2 (high and low) and state motivation at T_1 (high, moderate, and low) as independent

variables. Overall significant differences were found, $\underline{F}$ (5/177) = 14.92, $\underline{p} < .001$, with nonverbal immediacy at T_2 and state motivation at T_1 both having significant main effects on state motivation at T_2, but the interaction effect was not significant (see Table 2). Examination of the means indicated that students with high immediacy teachers had increased state motivation to study at mid-semester regardless of their beginning motivation, though students starting with high motivation maintained higher motivation than students starting with low motivation (see Table 3).

Insert Tables 2 and 3 about here

In the second ANOVA, state motivation at T_3 served as the dependent variable with nonverbal immediacy at T_3 (high and low) and state motivation at T_1 (high, moderate, and low) as independent variables. Overall significant differences were found, $\underline{F}$ (5/177) = 14.75, $\underline{p} < .001$, with nonverbal immediacy at T_3 and state motivation at T_1 having significant main effects, but no significant interaction effect (see Table 4). Means were in the same pattern as above, however a slight curvilinear effect appeared, though it was probably an anomaly due to small cell sizes (see Table 5 for mean comparisons).

Insert Tables 4 and 5 about here

The third and fourth ANOVA's addressed the impact of verbal immediacy. The third ANOVA used state motivation at T_2 as the dependent variable, with verbal immediacy at T_2 (high and low) and state motivation at T_1 (high, moderate, and low) as independent variables. Results similar to those found with nonverbal immediacy were found with verbal immediacy. Overall significant differences were found, $F(5/177) = 13.68$, $p < .001$. Verbal immediacy at T_2 and state motivation at T_1 had significant main effects with no significant interaction effect (see Tables 6 and 7). In the fourth ANOVA, state motivation at T_3 served as the dependent variable, with verbal immediacy at T_3 (high and low) and state motivation at T_1 (high, moderate, and low) as independent variables. Overall significant differences were found, $F(5/177) = 14.75$, $p < .001$. Significant main effects for verbal immediacy and state motivation were again found with no significant interaction effect (see Tables 8 and 9).

Insert Tables 6, 7, 8 and 9 about here

The results of these factorial analyses indicate that students, at all levels of beginning motivation, benefited from highly immediate teachers. Immediacy (both verbal and

nonverbal) appears to have the largest impact at mid-semester with students who began the semester with low motivation. However, cell sizes were small for low motivation, resulting in low power and possibly unstable results.

DISCUSSION

As was expected, not all students responded in the same way to having either a highly immediate teacher or a teacher low in immediacy. Examination of Tables 3, 5, 7, and 9 indicate that those students beginning the semester with high state motivation, were highly motivated at mid-semester and at the end-of-the-semester whether they reported their teacher as high or low in immediacy. However, students starting the semester with either low or moderate motivation had higher levels of motivation at mid-semester and at the end-of-the-semester if they had an immediate teacher rather than a non-immediate teacher. Significant differences between means were not consistent, however, the direction of the means was consistent, and if cell sizes had been larger, significant differences may have been more stable. An encouraging finding was that students beginning the semester with moderate motivation and who had an immediate teacher, reported levels of state motivation that began to approach those of students with high beginning motivation. A discouraging finding, although not surprising, was that students beginning the semester with low motivation, maintained low motivation throughout the semester. Having a highly immediate teacher did significantly increase

motivation, but was still relatively low compared to students with high motivation.

This study found support for the proposal that a teacher's immediacy behaviors impact a student's state motivation to study. However, what a student enters the classroom with (in terms of motivation) continues to impact that student in spite of situational variables. Trait motivation is one factor that is theorized as contributing to state motivation. Other individual variables that may influence a student's state motivation include self-esteem, expectations, and self-efficacy. Keller (1979; 1983, 1987a; 1987b) has identified student expectancies has a major component in motivation. Expectations, termed confidence in his more recent work, are thought to influence student persistence (Keller, 1987a). When students are confident (have positive expectations), they are more likely to attribute success to their effort rather than to luck, and to become involved in task activity. Teacher immediacy behaviors may have some impact on students expectations, but it is likely that past experience and feelings of confidence have a greater impact on students' expectations in the classroom. Students' expectations for success may have been a factor that influenced their mid-semester and end-of-the-semester state motivation, resulting in overall lower levels of motivation for those students who began the semester with low motivation.

What are the practical implications of this research for classroom teachers? Immediacy can be recommended to teachers

with greater confidence that it will indeed make a difference in student motivation. Verbal and nonverbal immediacy is clearly a useful tool in the classroom for enhancing motivation. It is also clear that increasing immediacy is not enough. Other teacher communication behaviors are likely to influence students' motivation to study, and future research should explore other communication strategies that teachers can use in the classroom. Immediacy also appears to be of greater benefit to those students beginning the semester with low to moderate motivation. Classes made up of "average" students are likely to exhibit increases in state motivation if the teacher appropriately uses verbal and nonverbal immediacy in her/his interactions with the students. On the other hand, using immediacy as a strategy to increase motivation in a class of honors students is likely to be less than satisfactory. There may be other benefits of immediacy in such a situation such an enhanced student-teacher relationships, but the impact on motivation would probably be negligible. However, since it is likely that there are a myriad of other forces influencing students motivation, immediacy should be thought of as a good place to start, and not an end in itself.

Does teacher immediacy influence students' motivation to study? Yes, there seems to be little doubt left as to the usefulness of perceptions of immediacy in the classroom. The next question is, "What else influences students' motivation to study?" Keller (1987b) has proposed a model that prescribes the necessary

components for influencing student motivation (attention, relevance, confidence, and satisfaction). However, Keller has applied these four components to instructional design; how to make instructional materials motivating, rather than how to make teachers motivating. Keller's ARCS model of motivation may be a useful springboard for further exploration of communication behaviors that impact students' motivation in the classroom.

Notes

[1]Participants were also asked to complete the affinity-seeking typology, a liking scale, the affective learning scale and a measure of cognitive learning at T_2 and T_3 in this research project.

[2]To insure that the participants who dropped out were not different from those who completed the study, an ANOVA was used to determine if there were differences in initial motivation (state and trait) between those who dropped out and those who did not. Three groups of participants were compared, those who completed the study, those who completed surveys at T_1 and T_2, but not at T_3, and those who only competed the survey at T_1. State motivation at T_1 and trait motivation at T_1 served as dependent variables and group of participants, participant sex, rank, major, and type of course being reported on (elective, requirement, etc.) served as independent variables. There were no significant differences in state or or trait motivation to study for any of the independent variables, except for type of course reported on with state motivation at T_1, [$F(8,484)=2.74$, $p<.05$]. Course requirement

accounted for less than 2% of variance in state motivation. Participants who only completed the survey at T_1 and who were reported on a class that was a core requirement (needed for graduation, but not for their major) had significantly lower state motivation.

References

Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. In D. Nimmo (Ed.), Communication yearbook 3 (pp. 543-559). New Brunswick, NJ: Transaction Books.

Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.

Beatty, M. J., Forst, E. C., & Stewart, R. A. (1986). Communication apprehension and motivation as predictors of public speaking duration. Communication Education, 35, 143-146.

Brophy, J. (1986). Socializing student motivation to learn. East Lansing, MI: Michigan State University, The Institute for Research on Teaching. (ERIC Document Reproduction Service No. ED 269 384)

Brophy, J. (1987). On motivating students. In D. C. Berliner & B. V. Rosenshine (Eds.), Talks to teachers (pp. 201-245). New York: Random House.

Brophy, J., Rashid, H., Rohrkemper, M., & Goldberger, M. (1983). Relationship between teachers' presentations of classroom tasks and students engagement in those tasks. Journal of Educational Psychology, 75, 544-552.

Christophel, D. M. (1990). The relationship among teacher immediacy behaviors, student motivation, and learning. Communication Education, 39, 323-340.

Corno, L., & Mandinach, E. B. (1983). The role of cognitive engagement in classroom learning and motivation. Educational Psychologist, 18, 88-108.

Frymier, A. B. (1993). The relationship among communication apprehension and immediacy on motivation to study. Communication Reports.

Frymier, A. B., & Thompson, C. A. (1991, May). The relationship among affinity-seeking, credibility, motivation, and learning: A replication and extension. Paper presented at the annual International Communication Association convention, Chicago, IL.

Frymier, A. B., & Thompson, C. A. (1992). Perceived teacher affinity-seeking in relation to perceived teacher credibility. Communication Education, 41, 388-399.

Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. Communication Education, 37, 40-53.

Keller, J. M. (1979). Motivation and instructional design: A theoretical perspective. Journal of Instructional Development, 2(4), 26-34.

Keller, J. M. (1983). Motivational design of instruction. In C. M. Reigeluth (Ed.), Instructional design theories: An overview of their current status (pp. 383-434). Hillsdale, NJ: Lawrence Erlbaum.

Keller, J. M. (1987a). Development and use of the ARCS model of instructional design. Journal of Instructional Development, 10(3), 2-10.

Keller, J. M. (1987b). Strategies for stimulating the motivation to learn. Performance and Instruction, 26(8), 1-7.

Kelley, D. H., & Gorham, J. (1988). Effects of immediacy on recall of information. Communication Education, 37, 198-207.

Mehrabian, A. (1971). Silent messages. Belmont, CA: Wadsworth.

Plax, T. G., Kearney, P., McCroskey, J. C., & Richmond, V. P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy, and affective learning. Communication Education, 35, 43-55.

Richmond, V. P. (1990). Communication in the classroom: Power and motivation. Communication Education, 39, 181-195.

Richmond, V. P., Gorham, J., & McCroskey, J. C. (1987). The relationship between selected immediacy behaviors and cognitive learning. In M. McLaughlin (Ed.), Communication yearbook 10 (pp. 574-590). Beverly Hills, CA: Sage.

Wlodkowski, R. J. (1978). Motivation and teaching: A practical guide. Washington, D.C.: National Education Association.

Table 1

Reliabilities, Means, Medians, and Standard Deviations of all Variables

Variable	Reliabilities alpha	test-retest	Mean	Median	SD
State Motivation1	.86	.80	24.32ab	24.00	5.39
State Motivation2	.94		22.04a	23.00	7.60
State Motivation3	.95		21.20b	22.50	8.11
Trait Motivation1	.78	.73	23.63	23.00	4.37
Trait Motivation2	.90		22.23	22.00	6.04
Trait Motivation3	.92		22.16	23.00	6.08
Verbal Immediacy2	.85*	.76	35.65c	35.00	11.22
Verbal Immediacy3	.84*		38.27c	38.00	11.17
Nonverb Immediacy2	.82	.75	36.80d	38.00	8.49
Nonverb Immediacy3	.83		35.19d	35.00	8.74

* split-half reliability

Column means sharing the same subscript are significantly different at $p < .05$.

Table 2

Analysis of Variance of State Motivation at T_2 (Nonverbal Immediacy at T_2)

Source	df	MS	F
State Motivation T_1 (SMot1)	2	1156.23	27.89*
Nonverbal Immediacy T_2 (NV2)	1	734.67	17.72*
NV2 x SMot1	2	23.08	.56
Error	172	41.46	
Total	177		

* $p < .001$

Table 3

Nonverbal Immediacy at T_2 by State Motivation at T_1 on State Motivation at T_2

State Motivation T_1	Nonverbal Immediacy	N	LS Mean	SD
Low	Low	5	10.80ab	4.09
	High	7	18.57ab	9.05
Moderate	Low	14	14.57ac	7.18
	High	90	20.88a	6.45
High	Low	10	23.50c	6.62
	High	52	27.33a	5.96

Column means sharing the same subscript are significantly different ay $p < .05$.

Table 4

Analysis of Variance of State Motivation at T_3 (Nonverbal Immediacy at T_3)

Source	df	MS	F
State Motivation T_1 (SMot1)	2	596.51	12.58*
Nonverbal Immediacy T_3 (NV3)	1	2205.21	46.52*
NV3 x SMot1	2	49.23	1.04
Error	172	47.41	
Total	177		

* $p < .001$

Table 5

Nonverbal Immediacy at T_3 by State Motivation at T_1 on State Motivation at T_3

State Motivation T_1	Nonverbal Immediacy	N	LS Mean	SD
Low	Low	6	13.50b	6.66
	High	6	16.50c	8.45
Moderate	Low	21	12.76a	6.22
	High	83	21.92ab	7.09
High	Low	15	17.67a	7.53
	High	47	26.43abc	6.41

Column means sharing the same subscript are significantly different at $p < .05$.

Table 6

Analysis of Variance of State Motivation at T_2 (Verbal Immediacy at T_2)

Source	df	MS	F
State Motivation T_1 (SMot1)	2	1156.23	27.18*
Verbal Immediacy T_2 (V2)	1	588.00	13.82*
V2 x SMot1	2	4.03	.09
Error	172	42.54	
Total	177		

* $p < .001$

Table 7

Verbal Immediacy at T_2 by State Motivation at T_1 on State Motivation at T_2

State Motivation T_1	Verbal Immediacy	N	LS Mean	SD
Low	Low	9	13.89ab	7.22
	High	3	19.67c	11.02
Moderate	Low	77	19.03ab	7.16
	High	27	22.89a	5.00
High	Low	32	24.88b	6.39
	High	30	28.67abc	5.38

Column means sharing the same subscript are significantly different at $p < .05$.

Table 8

Analysis of Variance of State Motivation at T_3 (Verbal Immediacy at T_3)

Source	df	MS	F
State Motivation T_1 (SMot1)	2	596.51	11.17*
Verbal Immediacy T_3 (V3)	1	1233.68	23.09*
V3 x SMot1	2	17.87	.33
Error	172	53.42	
Total	177		

* $p < .001$

Table 9

Verbal Immediacy at T_3 by State Motivation at T_1 on State Motivation at T_3

State Motivation T_1	Verbal Immediacy	N	LS Mean	SD
Low	Low	9	14.56ab	7.67
	High	3	16.33c	8.02
Moderate	Low	63	17.97a	7.93
	High	41	23.29c	6.50
High	Low	28	21.00b	8.62
	High	34	27.03abc	5.47

Column means sharing the same subscript are significantly different at $p < .05$.